



Information Repositories

For further information about the Allied Paper site, you may consult U.S. EPA's information repositories, which have been established at the following locations:

Kalamazoo Public Library
315 South Rose Street
Kalamazoo, Michigan 49007

Waldo Library
Western Michigan University
Kalamazoo, Michigan 49008

Fact Sheet

Allied Paper Operable Unit Site

Kalamazoo, Michigan

August 1998

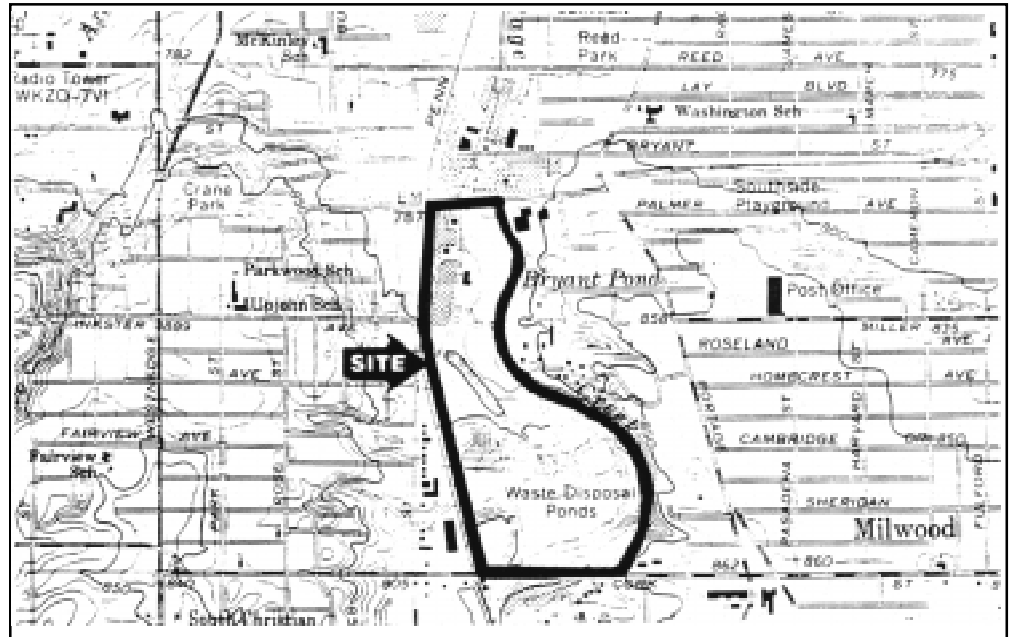


FIGURE 1

Introduction

This fact sheet provides information about a United States Environmental Protection Agency (U.S. EPA) time-critical removal cleanup action at the Allied Paper Operable Unit Superfund¹ site in Kalamazoo, Kalamazoo County, Michigan (see Figure 1).

The 51-acre site is located in a residential and commercial area along Portage Creek, approximately 3 miles upstream from where Portage Creek flows into the Kalamazoo River. The site is bound by Cork Street to the south, Alcott Street to the north, a Conrail Railroad line to the west, and by the easternmost floodplain and embankment of Portage Creek to the east. The Allied Paper Operable Unit is actually a portion of a much larger site officially named the Allied Paper, Inc./Portage Creek/Kalamazoo River (API/PC/KR) Superfund site. The API/PC/KR site includes 80 miles of the Kalamazoo River, portions of which contain polychlorinated biphenyl (PCB)-contaminated sediments resulting from paper mill industry operations. The API/PC/KR site also includes four operable units, one of which is Allied Paper.

¹ Words that appear in bold type are defined in a glossary on page 5.

The removal cleanup action at the Allied Paper Operable Unit will concentrate on removing PCB contamination from the Bryant Mill Pond area of Portage Creek. U.S. EPA has determined that the cleanup is necessary to eliminate the potential threat to public health and the environment.

Portage Creek flows in a northerly direction through the Bryant Mill Pond area. Bryant Mill Pond was formed years ago when Allied Paper, Inc., constructed the Alcott Street Dam. During mill operations, both treated and untreated wastewater containing residual paper pulp waste was discharged directly into the creek. Because the dam is no longer used, the 22-acre Bryant Mill Pond area is no longer under water. What remains in the exposed floodplain areas on either side of the creek is the residual paper pulp waste and soil contaminated with PCBs. The floodplains can be up to 300 feet wide in some areas. Sediment in the Portage Creek bed is also contaminated with PCBs.

The Bryant Mill Pond area is only one of several areas of concern at the Allied Paper Operable Unit. Other identified areas of contamination on site include: old containment lagoons once used to dewater or dry paper pulp waste, generally known as the Historic Residual Dewatering Lagoons (HRDLs) and the Former Residual Decanting Lagoons (FRDLs); several storage tanks and related piping; and, a former landfill (see Figure 2, Page 4).

Background

During its operation, Allied Paper's Bryant Mill facility produced a variety of high-quality papers. As part of the paper production process, it

was common practice to recycle various types of used paper in order to produce new paper. From the mid-1950s until 1971, carbonless copy paper was de-inked at the Allied Paper facility for recycling. Because the carbonless copy paper contained PCB-laden dyes, the process resulted in the release of significant quantities of PCBs to Portage Creek. Over the years, it is believed that the contamination has migrated downstream into the Kalamazoo River and ultimately into Lake Michigan.

Although some wastewater pretreatment equipment was used during this period, it did not totally eliminate the PCB-contaminated paper pulp waste from the wastewater being discharged to the creek. Residual paper pulp waste, which was removed during the pretreatment process, was placed in the on-site containment lagoons to be dried out. Contaminated and uncontaminated residuals were then removed from the lagoons and either used as fill on the property or placed in the on-site landfill.

In 1983, the state of Michigan designated the API/PC/KR site as a Michigan Environmental Response Act (Act 307) site. The site was placed on the U.S. EPA National Priorities List (NPL) in August 1990. By agreement between U.S. EPA and the Michigan Department of Environmental Quality (MDEQ), the state has been designated as the lead response agency. To date, MDEQ has had primary responsibility for overseeing all response activities associated with the entire site. MDEQ will determine the final remedy or cleanup actions to take place for the remaining contaminated areas of the Allied Paper Operable Unit.

Public Health and Environmental Risk

During the late 1960s and early 1970s, it was becoming evident that PCBs had toxic properties. The manufacture of PCBs in the United States stopped in 1977 because of evidence that PCBs accumulated in the environment and may cause health hazards. Studies on humans indicate that long-term exposure to high levels of PCBs can cause liver and skin disorders. Women exposed to PCBs are at an increased risk of developing reproductive problems. Studies indicate that fish contaminated with PCBs develop severe reproductive impairments. Reproductive problems in fish-eating birds have also been linked to PCBs. When animals eat PCB-contaminated food, the PCBs are stored in their fatty tissue and are not excreted through normal functions. If an animal consumes food with PCB contamination, it will increase the amount of PCBs already stored in its system, causing an accumulation of contamination. This accumulation of PCBs in the food chain is known as bioaccumulation. Since 1977, the state of Michigan has placed a fishing advisory/ban on the Kalamazoo River, due to elevated levels of PCBs in fish.

Current Activities

U.S. EPA became actively involved with the Bryant Mill Pond area of the Allied Paper Operable Unit in the spring of 1997. MDEQ requested the assistance of U.S. EPA in performing an immediate removal site assessment. Following the assessment, U.S. EPA took these steps:

- 1) decided that a removal action was appropriate for protection of

public health and the environment;
2) informed the Potentially Responsible Parties (PRPs) of the decision, and;

3) reached an agreement with the PRPs for them to pay for cleanup costs.

Due to the quantity and concentrations of PCB-contaminated residual paper waste, soil, and sediment, the Bryant Mill Pond area is the most important upstream source of PCB-contamination to the Kalamazoo River. Ultimately, PCB contamination from the Kalamazoo River migrates to Lake Michigan. U.S. EPA proposes to abate the on-going release and migration of PCBs to Portage Creek by removing approximately 90,000 cubic yards of PCB contamination from the creekbed and floodplain areas. Sampling and analysis of floodplain sediment in the Bryant Mill Pond area have disclosed PCB levels as high as 1,000 parts per million or ppm, with near surface sediment concentrations exceeding 500 ppm.

The portion of the Bryant Mill Pond area to be addressed is described as: north to the Alcott Street Dam; east and west to the embankments of the Portage Creek floodplain, and extending upstream to a point east of the southeast corner of the Bryant lagoon.

U.S. EPA will be using the United States Army Corps of Engineers (U.S. ACE), and its contractor, Roy F. Weston, Inc., to conduct the cleanup action. Preliminary steps have begun. On June 16, 1998, contractors for the U.S. ACE began to clear vegetation from the excavation area to allow access for heavy equipment. Portage Creek will be temporarily diverted from its normal flow in order to conduct a dry excavation of the creekbed and flood-

plain. Contaminated residuals, sediments, and soils removed from the Bryant Mill Pond area will be placed, at least temporarily, in the Bryant lagoon. The Bryant lagoon is on higher ground and well away from the Portage Creek floodplain.

Removal Phase

The removal phase of the project will most likely begin in late August or early September 1998, and should be completed in early summer 1999. Work will continue through the winter months, as weather permits.

Important activities that will take place during the removal include:

- Enforcement of a health and safety plan which includes an air monitoring plan. Air monitoring will take place during the entire project to ensure that on-site activities do not effect health and safety of the work crew or the surrounding community.
- Construction of haul roads on site to transport contaminated material from the Bryant Mill Pond area to the Bryant lagoon.
- Installation of physical barriers in the creek to control resuspension and off-site migration of sediments during site operations.
- Excavation of soils, sediments, or paper residual waste within the Bryant Mill Pond area, including creekbed sediment, contaminated with concentrations of PCBs exceeding the cleanup action level (approximately 90,000 cubic yards.) Excavation depths could be up to 6 feet.
- Transportation of contaminated residuals, soils, and sediment from the excavation areas to the Bryant lagoon. Saturated material will be dewatered as necessary.
- The PCB-contaminated residuals, soil, and sediment placed in the Bryant lagoon will be appropriately covered in a manner that is protective to human health and the

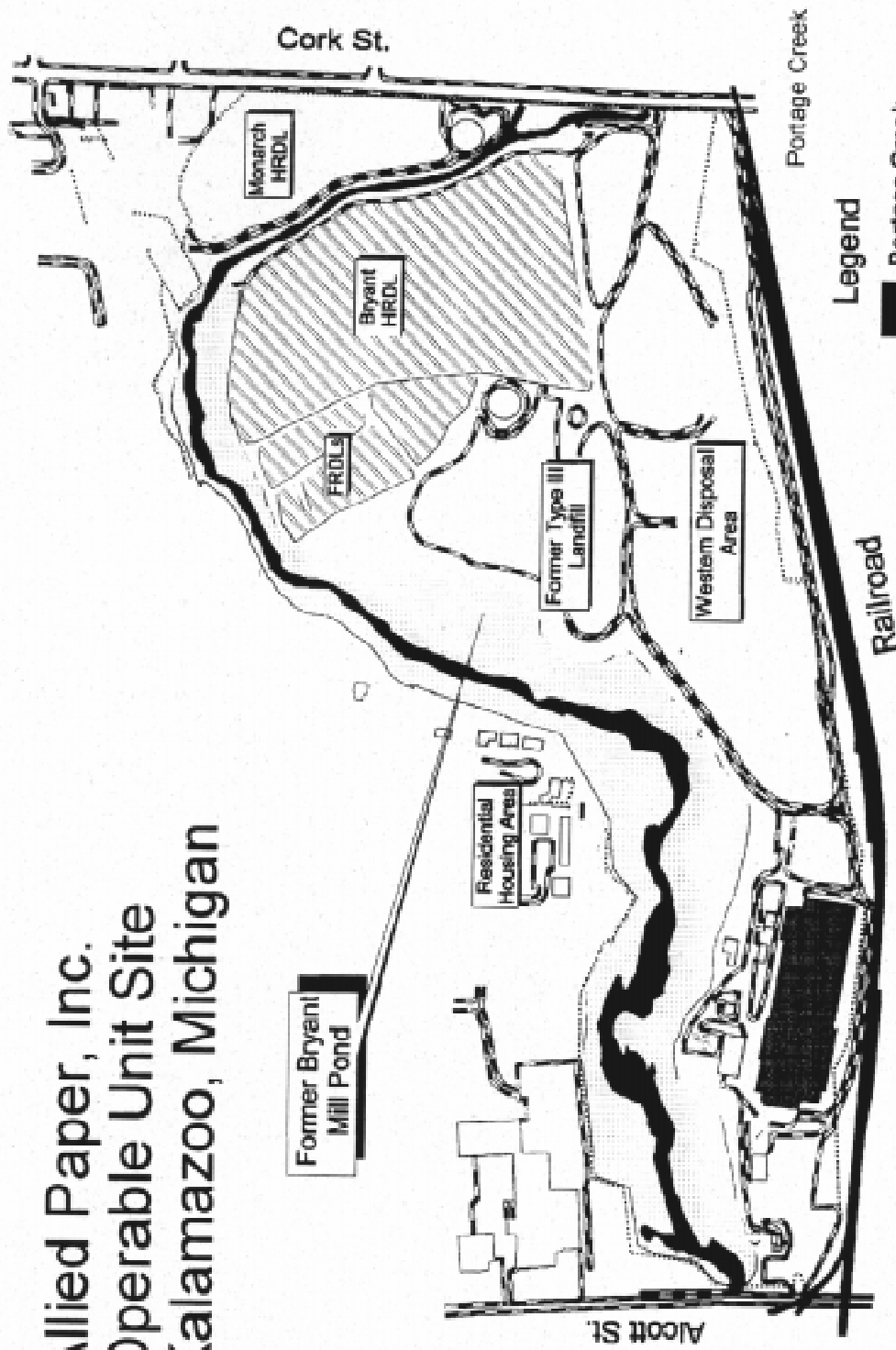
environment, until a final remedy for the on-site containment units at the Allied Paper Operable Unit is selected by MDEQ and implemented accordingly.

- Any water collected during cleanup activities will be treated on site. Treated water will be stored on site while samples are tested for PCBs and other contaminants. Treated water meeting established discharge limits will be returned to Portage Creek.
- Samples will be collected from excavation areas and tested for PCBs to confirm that the cleanup action level has been met. If these levels are not met, additional excavation and confirmation sampling will be conducted.
- Excavation areas will be backfilled with clean soil, as necessary.
- Upon completion of the excavation activities, the Bryant Mill Pond will be restored by reseeding and performing erosion control, as necessary.






Expected Results

Excavation, containment, and appropriately covering the PCB-contaminated soil, sediment, and residual paper waste will mitigate the public health threat posed by direct human and wildlife contact. Excavation and containment will also mitigate the threats posed to aquatic life and wildlife threatened by ongoing releases of PCBs to Portage Creek. Removing the contaminated material from the Portage Creek floodplain will end the ongoing release of PCBs to the creek and the Kalamazoo River downstream. U.S. EPA anticipates the removal cleanup will be consistent with the final remedy selected by MDEQ, addressing cleanup of the remainder of the Allied Paper Operable Unit. ■

Allied Paper, Inc. Operable Unit Site Kalamazoo, Michigan



Legend

-  Portage Creek
-  Extent of former Bryant Mill Pond
-  Lagoons
-  Roadways
-  Fencing



USEPA Superfund Division
77 West Jackson Blvd.
Chicago, IL 60604



Glossary

Bioaccumulation - a process involving chemicals that are persistent in the environment and do not dissolve, disperse, or degrade. The chemicals accumulate and increase in concentration with each step in the food chain. Such chemicals may enter the food chain and eventually be consumed by humans. Chemicals that bioaccumulate collect in the fatty tissue and organs of humans and are not disposed of through normal body functions.

National Priorities List - U.S. EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund. The list is based primarily on the score a site receives from the Hazardous Ranking System. U.S. EPA is required to update the NPL at least once a year. A site must be on the NPL to receive money from the Trust Fund for remedial action.

Parts per million - units of measure commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

Polychlorinated biphenyls - PCBs are a family of organic compounds that were used in the manufacturing of products, such as carbonless copy paper, adhesives, and caulking compounds; in lubricants; and as insulators and coolants in electrical transformers. PCBs are extremely persistent in the environment; they do not break down into less harmful chemicals over a long period of time. They are stored in the tissues of humans and animals through the bioaccumulation process. Long-term exposure to PCBs can cause damage and has also been shown to cause cancer in laboratory animals.

Potentially Responsible Parties - any individual or company, including owners, operators, transporters, or generators, potentially responsible for, or contributing to a spill or other contamination. Whenever possible, through administrative and legal actions, PRPs are required to clean up hazardous sites they have contaminated.

Superfund - the Federal program that operates under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This law authorizes the Federal government to respond directly to releases (or threatened releases) of hazardous substances that may endanger public health, welfare, or the environment. U.S. EPA is responsible for managing Superfund.

Mailing List

If you did not receive this fact sheet in the mail, you are not on the U.S. EPA's mailing list for the Allied Paper site. To add your name to the list to receive information concerning the site, please fill out this form, detach, and mail to:

Stuart Hill, Community Involvement Coordinator
Office of Public Affairs (P-19J)
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Name _____

Affiliation _____

Street Address _____

City, State _____ Zip _____

For More Information

Information repositories containing documents concerning the cleanup of the Allied Paper Inc., site have been set up at the following locations:

Kalamazoo Public Library
315 South Rose Street
Kalamazoo, Michigan 49007

Waldo Library
Western Michigan University
Kalamazoo, Michigan 49008

For additional information about the cleanup at the Allied Paper Inc., site, you may contact the following representatives:

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Brad Stimple
On-Scene Coordinator
U.S. EPA Region 5 (SE-5J)
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e-mail: "stimple.brad@epamail.epa.gov"

Toll-Free: (800) 621-8431
<http://www.epa.gov>

For additional information regarding the overall API/PC/KR site, you may contact:

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